

1 **(BSP June 11, 2003)**

2 **Rapid Cure Silicone Sealant**

3 Rapid cure silicone sealant shall be one of the following two products conforming to the  
4 following specifications:

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6 **Dow Corning 902 RCS Joint Sealant**

7 The joint sealant shall be a rapid cure, 100 percent silicone, low modulus, self-  
8 leveling, cold applied, two part formulation, which is compatible with the surfaces to  
9 which it is applied. Rapid cure is defined as developing sufficient integrity within  
10 eight hours to accommodate both horizontal thermal movements and vertical  
11 movements at the joint.

12  
13 The joint sealant shall not be an acid cure sealant.

14  
15 The joint sealant shall conform to the following properties:

16  
17 As Applied

18 Extrusion rate	MIL S 8802	200 to 550 grams/minute
19 Specific gravity	ASTM D 1475	1.25 to 1.35
20 Nonvolatile content		93 percent minimum

21  
22 As Installed

23 (at 25C, 50 percent relative humidity, and 48 hours cure)

24 Skin-over time		20 minutes maximum
25 Joint elongation	ASTM D 5329*	600 percent minimum
26 Joint modulus	ASTM D 5329*	20 to 85 kPa at 100% elongation

27  
28 \*Section 14 modified as follows:

29 Pull Rate = 51 millimeters/minute

30 Specimen joint size = 13 mm by 13 mm by 51 mm

31  
32 The primer shall be as recommended by the sealant manufacturer.

33  
34 **Watson Bowman Acme Two Part Silicone Sealant**

35 The joint sealant shall be a cold applied, low modulus, two part formulation. When  
36 properly mixed, the joint sealant shall cure within four hours to form a well bonded  
37 seal.

38  
39 The joint sealant shall conform to the following properties:

40  
41 As Supplied (Each Component)

42 Extrusion rate	ASTM C 1183	200 to 600 milliliters/minute
43 Leveling	ASTM C 639	Self leveling

44  
45 As Installed

46 Tack free time	ASTM C 679	60 minutes maximum
47 Joint elongation	ASTM D 5329 <sup>1, 2</sup>	600 percent minimum

1	Joint modulus (min.)	ASTM D 5329 <sup>1, 2</sup>	103 kPa at 100%
2			elongation
3	Cure Evaluation	ASTM D 5893	Pass at four hours
4			maximum
5	Ultimate elongation	ASTM D 412 Die C <sup>1</sup>	1,000 percent minimum
6	Ult. stress (max.)	ASTM D 412 Die C <sup>1</sup>	172 kPa at 150%
7			elongation
8	Shore Hardness, 00	ASTM C 661 <sup>1</sup>	40 - 80
9	Specific Gravity	ASTM D 792 <sup>1</sup>	1.20 - 1.40

10  
11                   <sup>1</sup> Seven day cure at 25C±2C and 50±5 percent relative humidity

12                   <sup>2</sup> Specimen joint size = 13 mm by 13 mm by 51 mm

13  
14                   The Contractor shall deliver the joint sealant to the job site in the sealant manufacturer's  
15                   original sealed container. Each container shall be marked with the sealant  
16                   manufacturer's name and lot or batch number. Each lot or batch shall be accompanied  
17                   by the manufacturer's Materials Safety Data Sheet (MSDS), and Certificate of  
18                   Compliance, identifying the sealant manufacturer and the lot or batch number, and  
19                   certifying that the materials conform to the specified requirements.

20  
21                   The backer rod shall be closed cell expanded polyethylene foam as recommended by  
22                   the sealant manufacturer and approved by the Engineer. The diameter of the backer  
23                   rod shall be as recommended by the sealant manufacturer for the expansion joint  
24                   opening at the time of installation.